

714

Notice of Allowability	Application No.	Applicant(s)	
	10/655,711	MASTEN, BILLY R.	
	Examiner	Art Unit	
	Amanda H. Merlino	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 8/3/07.
2. ☒ The allowed claim(s) is/are 1, 2 and 4-30.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dorsey Baker 11/29/07.

The application has been amended as follows:

- a) on line 9 of claim 17, -- , said comparison being made with a low cost chip having an arithmetic logic unit -- has been added after "objects";
- b) on line 9 of claim 21, -- , said comparison being made with a low cost chip having an arithmetic logic unit -- has been added after "if any".

Reasons for Allowance

Claims 1-2, and 3-30 allowed.

As to claims 1-2 and 4-6, the prior of record, taken alone or in combination, fails to disclose or render obvious a low cost machine vision apparatus comprising a low cost controller for obtaining the electronic data representative of said reflected light from a selected object and for obtaining data representative of additional reflections of light in spatial segments from additional objects, said controller including a digital logic for comparing the data, in combination with the rest of the limitations of claim 1.

As to claims 7-12, the prior of record, taken alone or in combination, fails to disclose or render obvious a low cost , optical inspection apparatus comprising a low

cost comparator connected to said sensor array and having a first memory for receiving and storing signals representative of the magnitude of the light from the acceptable, standard surface of the objects, said comparator having a logic unit and a control algorithm for comparing signals, in combination with the rest of the limitations of claim 7.

As to claims 13-16, the prior of record, taken alone or in combination, fails to disclose or render obvious a low cost, real time, digital diagnostic inspection unit for examining an object comprising a digital identifier having first memory containing a "standard" electronic information representative of light from spatial segments of an object and a second associated memory containing electronic information representative of light from spatial segments of an object to be measured, said identifier having a logic unit for comparing the electronic information, in combination with the rest of the limitations of claim 13.

As to claims 17-20, the prior of record, taken alone or in combination, fails to disclose or render obvious a low cost, optical method for inspecting an object comprising the step of comparing said digital data of said spatial distribution of the standard of comparison with the digital data of reflected light from said other object through a regression algorithm with a low cost chip having an arithmetic logic unit, in combination with the rest of the limitations of claim 17.

As to claims 21-23, the prior of record, taken alone or in combination, fails to disclose or render obvious a low cost, high speed method for surface inspection comprising the steps of comparing said spatial distribution of light to determine the similarity of the standard of comparison with the additional line of material to identify the

presence of flaws, in any with a low cost ship having an arithmetic logic unit, in combination with the rest of the limitations of claim 21.

As to claims 24-29, the prior of record, taken alone or in combination, fails to disclose or render obvious a low cost machine vision apparatus comprising a lens for focusing a spatial distribution of light, a comparator for obtaining the electronic data representing the specific conditions and for obtaining electronic data from a sensor array representing subsequent conditions, and said comparator containing a logic unit and algorithm, in combination with the rest of the limitations of claim 24 .

As to claims 30, the prior of record, taken alone or in combination, fails to disclose or render obvious low cost vision scanning method comprising the steps of electronically comparing said first spatial distribution of light with said additional spatial distributions of light with a low cost chip having an arithmetic logic unit to determine the similarity and/or difference between, in combination with the rest of the limitations of the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda H Merlino whose telephone number is 571-272-2421. The examiner can normally be reached on Monday and Thursday.

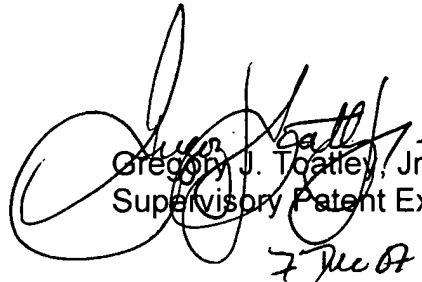
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J Toatley, Jr. can be reached on 571-272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Amanda H Merlino *ah*
Patent Examiner
Art Unit 2877
November 29, 2007


Gregory J. Toatley, Jr.
Supervisory Patent Examiner
7 Dec 07